

Handmade Recycled Paper Planters



Objective

To show students how easy it can be to make products from recycled items.



Activity Description

Students will make planters from recycled paper.



Materials Needed

- Large stack of newspapers
- Scissors
- Three to five 2-gallon buckets
- Water
- Egg beaters
- Magnifying glass
- Plant seeds for each student
- Planting soil
- Paper drinking cups



Key Vocabulary Words

Recycle
Fibers
Decompose
Pulp
Virgin materials
Resources



Duration

2-3 hours



Skills Used

Motor skills



Activity

Step 1: Introduce the concepts of recycling and decomposition to the class. Explain that making items from recyclables rather than virgin materials benefits the environment by saving natural resources. (Refer to the Teacher Fact Sheets titled *Recycling* on page 73 and *Natural Resources* on page 5 for background information. The *Composting* fact sheet on page 109 contains information on decomposition.)

Step 2: Discuss with the class how paper is made. Explain that most paper is made from only trees, while other paper is made from a combination of trees and old newspaper or

used office paper (in addition, a small percentage of paper is made from other fibrous materials such as cotton, papyrus, or rags). Discuss how when recycled paper is used to make new paper, less trees need to be cut down. Help students explore the environmental implications of this.

Step 2: Have each student cut up two full pages of newspaper into 1/2- to 1-inch square pieces.

Step 3: Ask a few student volunteers to fill the buckets 1/3 full with paper and the remaining 2/3 with water (1 part paper to 2 parts water).



science



art



Journal Activity

Ask students to write a story about their seedling's journey from its first days in the planter to when it takes root in the ground outdoors.

Step 4: Let the mixture sit overnight. By the next day, the newspaper fibers will be soft and ready to pulp.

Step 5: On the second day, have students take turns pulping the fibers with the hand beater until the paper and water look like mush. Explain that the pulping process breaks down the fibers into a form that can be bonded together again to make recycled paper. Have students look at the pulp with a magnifying glass to see the loose wood fibers.

Step 6: Give each student a plastic cup-shaped container. Instruct them to mold the pulp to the inside of the cup, squeezing out as much of the water as possible. The pulp should be 1/4- to 1/2-inch thick on the inside of the cup.

Step 7: Let the pulp dry completely over the next 3 days.

Step 8: After the pulp has dried, take the handmade recycled paper cup out of the drinking cup.

Step 9: Give each student a seed and instruct them to plant it in the cup using the planting soil. Keep the planters in the classroom and have the students care for the plants. Discuss how much sunlight and water their plants need.

Step 10: Send the students home with their planters when the seedlings have sprouted and are ready to be planted in the ground. Instruct the students to place the whole cup with the plant in it into the ground.

Students in an urban setting could either plant their seedlings in a local park or decorate their planters and donate the seedlings to a local nursing home. (Students also could give a presentation on recycling to the elderly when they drop off their planters.)

Step 11: Discuss how the planter will decompose in the soil and the plant will take root in the ground. Explain that they have just completed the recycling loop by sending the nutrients from the paper cup back into the soil.



Assessment

1. Ask students where paper comes from.
2. Ask students to explain how making paper from used paper benefits the environment.
3. Ask students how and why the planter will decompose in the ground.



Enrichment

1. On the blackboard or as a handout, work with the students to diagram and label all of the steps that occur in making paper from recycled materials versus making paper from only virgin materials. Discuss the differences.
2. Instead of sending the students home with the seedlings, start a garden at the school and tend it regularly with the class.
3. Have students discuss what else they can do to reduce the number of trees being cut down to make paper.